MRL-8 Data Logger



The MRL-8 collects, processes, stores and transmits readings from environmental sensors at remote monitoring sites.

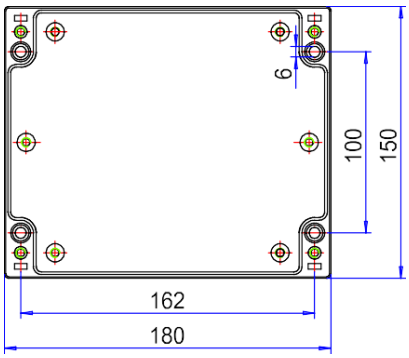
The logger has an IP67 enclosure and a built-in 4G modem. Its solar charge controller supports battery operation at sites without mains power. The MRL-8 accepts Sommer Messtechnik sensors and third-party devices with compatible analogue or SDI-12 interfaces.

Configurations

Model	Configuration	European modem	North American modem
MRL-8	Integrated 4G modem	21927	22142
MRL-8B	4G modem and built-in 6 Ah lead-acid battery	22015	22143
MRL-8E	4G modem and Ethernet	20062	22141
MRL-8P	4G modem and Ethernet with third-party protocol support	22023	22144

All configurations include a solar charge controller.

Housing dimensions



Housing depth 61 mm. Connectors project 27 mm beyond the housing.

Scope of delivery

Item	Qty
MRL-8 in the ordered configuration	1
USB drive with the user manual and Commander software	1
Blanking plugs for unused cable glands	3

Sommer Messtechnik and Sensors One reserve the right to change technical specifications without notice.

MRL-8 Technical Specifications

Power and inputs	Specification
Power supply	9–28 V DC. Overvoltage and reverse-polarity protection.
Solar panel	Up to 40 W at 12 V
Current draw	<23 mA when active and <0.6 mA in standby at 12 V (terminal X1)
Sensor supply	100 mA at 5 V or 200 mA at 12 V
Switched sensor supply	1 × 1.10 A and 3 × 0.50 A at the switched supply voltage. 2 A max. total.
Analogue inputs	4 × 0–2.5 V, 16-bit. Three single-ended and one differential.
Counters and wind	2 counter inputs, one configurable for an encoder. One input each for wind speed and direction.
Digital inputs	1 × RS-485 for a sensor or camera. 1 × SDI-12 as master.
Manual entry	Observer input for an offset value

Data and interfaces	Specification
Switched outputs	3 outputs, approx. 500 mA each at supply voltage
Local interfaces	RS-232 (1,200–115,200 baud, ASCII), RS-485, USB and Bluetooth
Internal memory	8 MB flash, approximately 1 million measurement values
Measurement interval	2 s to 12 h
Mobile modem	2G, 3G and 4G
Server destinations	Up to 4 servers via FTP, FTPS, HTTP or HTTPS
Modem functions	IP call, fixed IP and NTP time synchronisation. SMS where supported by the SIM card.
Ethernet	Available on MRL-8E and MRL-8P

Environmental and mechanical ratings

Parameter	Specification	Parameter	Specification
Operating conditions	−30 to +60 °C (−22 to +140 °F), 10–95% RH	**Ingress protection**	IP67
Storage conditions	−40 to +85 °C (−40 to +185 °F), 10–95% RH	**Weight**	1,610 g (3.55 lb)
Base housing size	180 × 150 × 61 mm (7.09 × 5.91 × 2.40 in), excl. connectors	**Connector projection**	27 mm (1.06 in)

Optional accessories

Part no.	Accessory
20181	RS-232 to USB converter cable with push-pull connector, 1.8 m
21118	Antenna for MRL-8 and DCM-3 with a 2.5 m cable and SMA male connector for 2G, 3G, 4G, Bluetooth and 2.4 GHz Wi-Fi
20595	SOMCAM-2W digital camera

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